Diphtheria

What is Diphtheria?

Diphtheria is an infection caused by *Corynebacterium diphtheriae* bacteria.

Diphtheria is spread (transmitted) from person to person, usually through respiratory droplets, from coughing or sneezing. Rarely, spreading may occur from skin lesions (like an abnormal sore) or clothes that are contaminated with discharges from lesions (like a sore) of an infected person.

A person also can get infected with diphtheria by coming in contact with an object, like a toy, that has been contaminated with the bacteria that cause diphtheria.

What are Symptoms of Diphtheria?

When the bacteria that cause diphtheria invade the respiratory system, they produce a poison (toxin) that can cause:

- Weakness
- Sore throat
- Fever
- Swollen glands in the neck

Within two to three days, a thick coating can build up in the throat or nose, making it very hard to breathe and swallow. This thick gray coating is called a "pseudomembrane" and it can build up over the nasal tissues, tonsils, voice box, and throat.

The pseudomembrane is formed from dead tissue caused by the toxin that is produced by the bacteria. The pseudomembrane sticks to the tissue below and may get in the way of breathing. The toxin may be absorbed into the blood stream and may cause damage to the heart, kidneys and nerves.

How is Diphtheria Diagnosed and Treated?

Diagnosis of diphtheria is usually made based on signs and symptoms. A swab specimen is taken from the throat to test for the bacteria. A doctor can also take a sample from a skin lesion (like a sore) and try and grow the bacteria to confirm the diagnosis of diphtheria.

It is important to start treatment right away if diphtheria is suspected and not to wait for laboratory confirmation. In the U.S, before there was treatment for diphtheria, up to half of the people who got the disease died from it.

Diphtheria treatment today involves:

- Using diphtheria antitoxin to neutralize (counteract) the toxin produced by the bacteria.

- Using antibiotics to kill and eliminate diphtheria bacteria

If you have any questions, please contact Allen County Public Health at 419-228-4457. Health Department staff members are available to answer your questions Monday to Friday from 8:00 a.m. to 4:30 p.m. You can also visit www.allencountypublichealth.org and the Centers for Disease Control and Prevention's Web site at www.emergency.cdc.gov for additional information.

Fact Sheet

Diphtheria patients are usually kept in isolation, until they are no longer able to infect others — usually about 48 hours after antibiotic treatment begins. The disease is usually not able to be spread after the patient has been on antibiotics for 48 hours. After the course of antibiotic treatment is finished, the doctor will run tests to make sure the bacteria are not in the patient's body anymore.

How to Prevent Getting Diphtheria?

The best way to prevent diphtheria is to get vaccinated. In the U.S., there are four combination vaccines used to prevent diphtheria: DTaP, Tdap, DT and Td. Each of these vaccines prevents diphtheria and tetanus; DTaP and Tdap vaccines also prevent pertussis (whooping cough). DTaP and DT vaccines are given to children younger than seven years of age, and Tdap and Td vaccines are given to older children, teens and adults.

To find out when to get your child, adolescent, and adult Diphtheria vaccination go to http://www.cdc.gov/diphtheria/about/prevention.html.

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